(3) One stereophonic subcarrier must be the second harmonic of the pilot subcarrier (i.e. 38 kHz) and must cross the time axis with a positive slope simultaneously with each crossing of the time axis by the pilot subcarrier. Additional stereophomic subcarriers are not precluded.

(4) Double sideband, suppressed-carrier, amplitude modulation of the stereophonic subcarrier at 38 kHz must be used.

(5) The stereophonic subcarrier at 38 kHz must be suppressed to a level less than 1% modulation of the main carrier.

(6) The modulating signal for the required stereophonic subcarrier must be equal to the difference of the left and right signals.

(7) The following modulation levels apply:

(i) When a signal exists in only one channel of a two channel (biphonic) sound transmission, modulation of the carrier by audio components within the baseband range of 50 Hz to 15 kHz shall not exceed 45% and modulation of the carrier by the sum of the amplitude modulated subcarrier in the baseband range of 23 kHz to 53 kHz shall not exceed 45%.

(ii) When a signal exists in only one channel of a stereophonic sound transmission having more than one stereophonic subcarrier in the baseband, the modulation of the carrier by audio components within the audio baseband range of 23 kHz to 99 kHz shall not exceed 53% with total modulation not to exceed 90%.

(b) Stations not transmitting stereo with the method described in (a), must limit the main carrier deviation caused by any modulating signals occupying the band 19 kHz ±20 Hz to 125 Hz.

(c) All stations, regardless of the stereophonic transmission system used, must not exceed the maximum modulation limits specified in §73.1570(b)(2). Stations not using the method described in (a), must limit the modulation of the carrier by audio components within the audio baseband range of 23 kHz to 99 kHz to not exceed 53%.

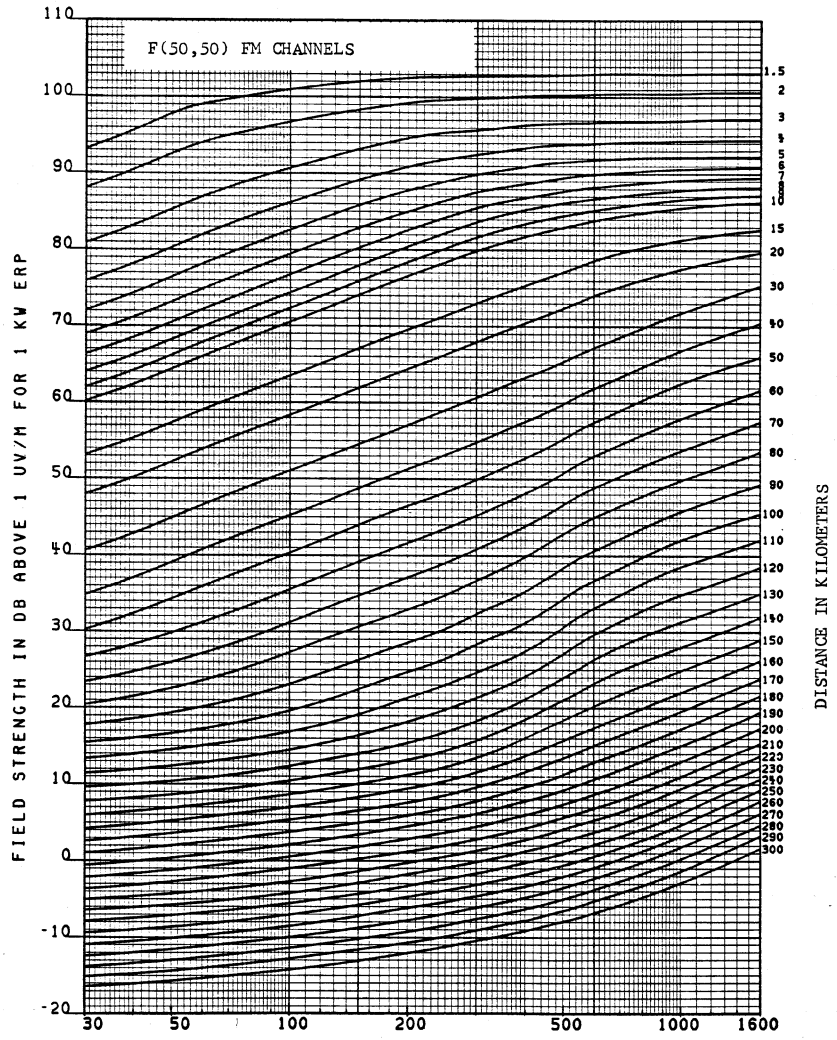
[51 FR 17029, May 8, 1986]

§73.333 Engineering charts.

This section consists of the following Figures 1, 1a, 2, and slider 4 and 5.

NOTE: The figures reproduced herein, due to their small scale, are not to be used in connection with material submitted to the F.C.C.

C16

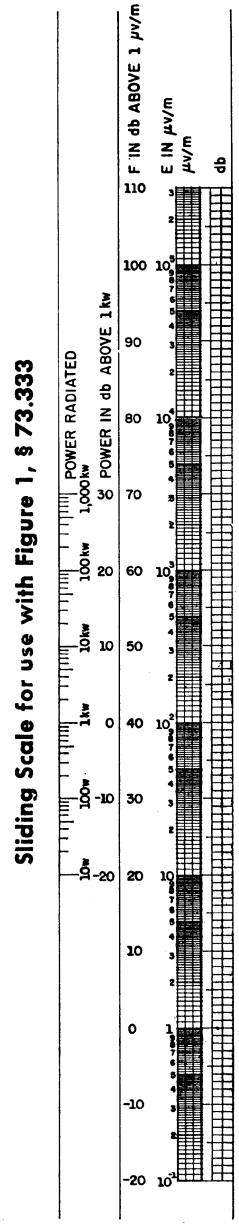


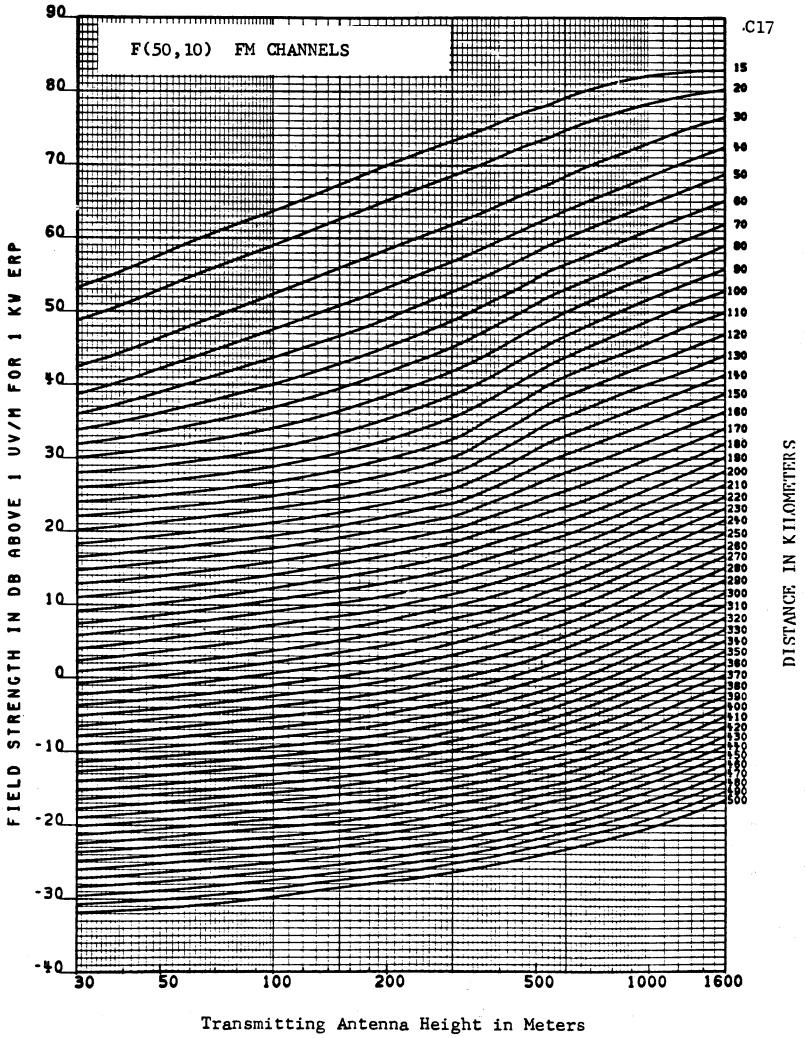
FCC §73.333 FIGURE 1

FM CHANNELS

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS

Sliding Scale for use with Figure 1, § 73.333





FCC §73.333 FIGURE 1a

FM CHANNELS

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS

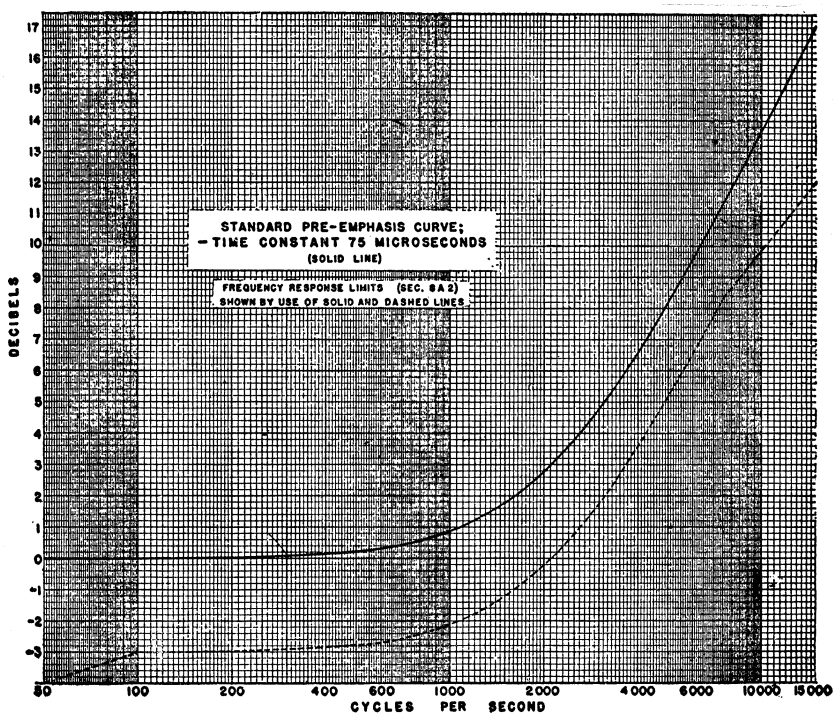
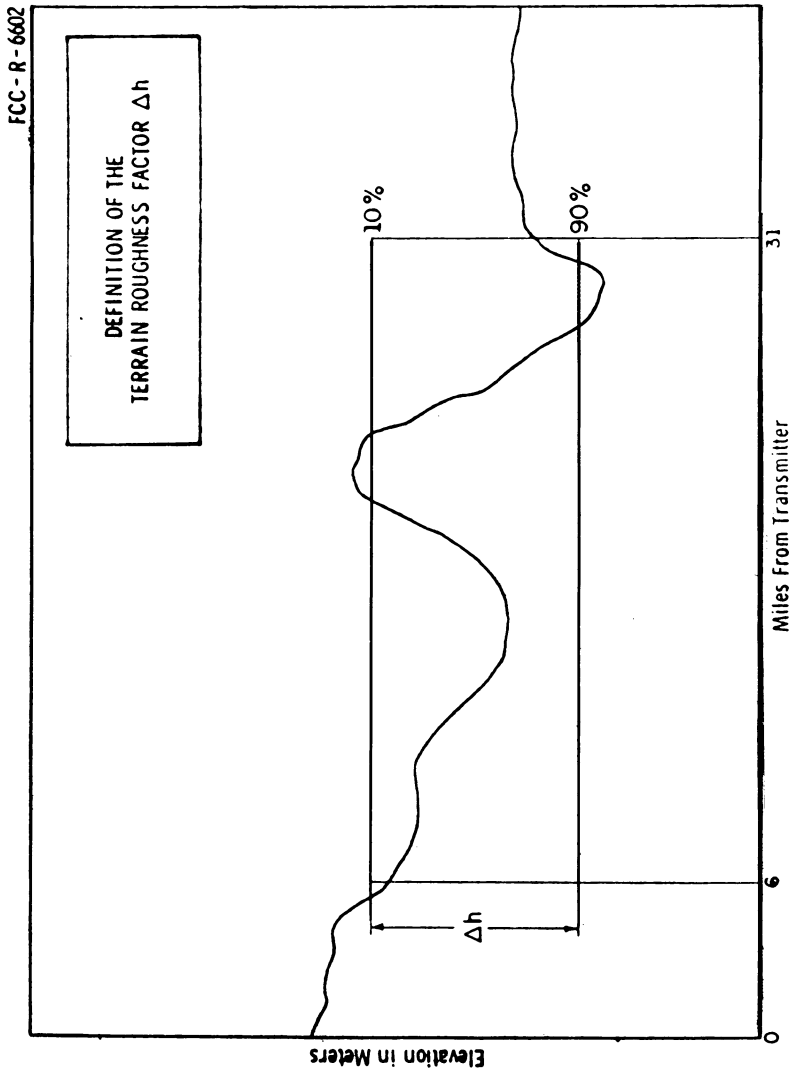
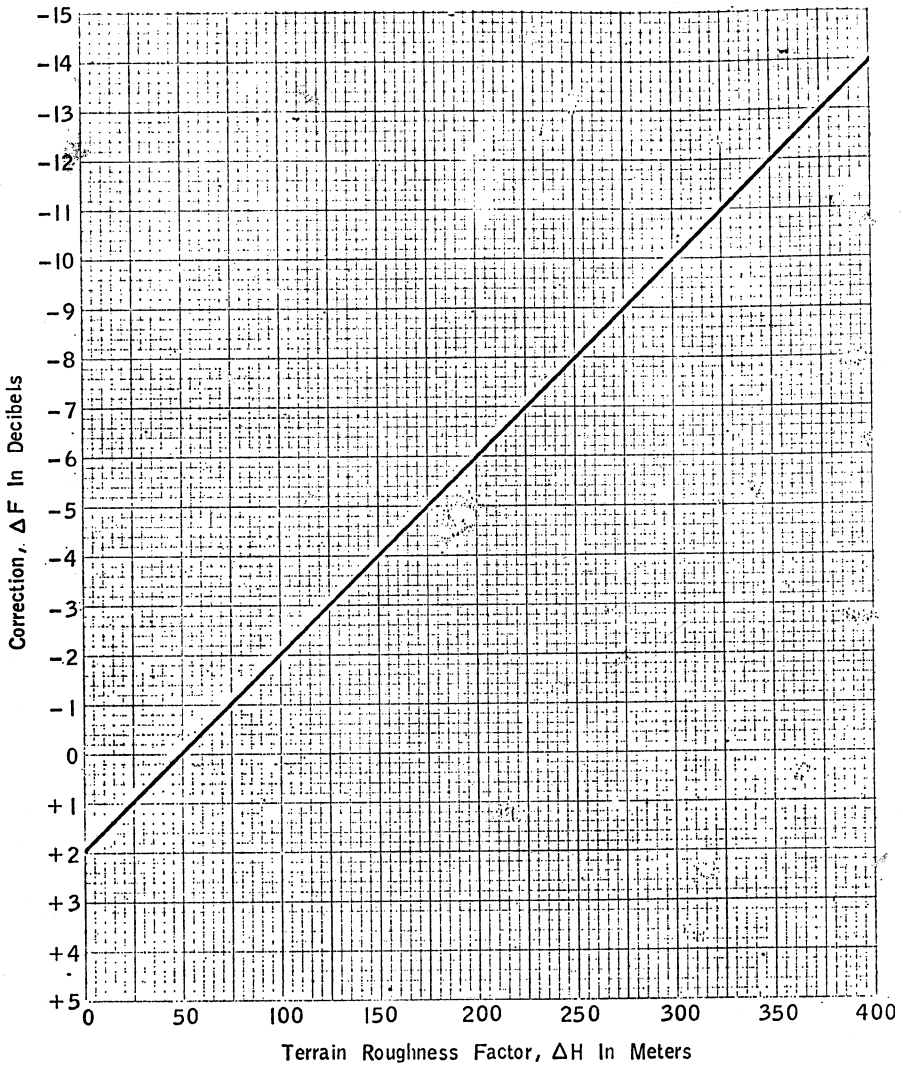

STANDARD PRE-EMPHASIS CURVE;
-TIME CONSTANT 75 MICROSECONDS
(SOLID LINE)
FREQUENCY RESPONSE LIMITS (SEC. 9A2)
SHOWN BY USE OF SOLID AND DASHED LINES
DECIBELS
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
-1
-2
-3
50
100
200
400
600
1000
2000
4000
6000
10000
15000
CYCLES PER SECOND

FIGURE 2



FCC § 73.333 FIGURE 4
(new)



TERRAIN ROUGHNESS CORRECTION

for use with estimated FM F(50,50) and F(50,10) field strength curves

FCC §73.333 FIGURE 5

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13623, Dec. 14, 1963, as amended at 35 FR 2591, Feb. 5, 1970; 40 FR 27679, July 1, 1975; 45 FR 28141, Apr. 28, 1980; 48 FR 29508, June 27, 1983; 49 FR 19670, May 9, 1984]

EFFECTIVE DATE NOTE: At 42 FR 25736, May 19, 1977, in §73.333, the effective date of Figures 4 and 5 was stayed indefinitely.